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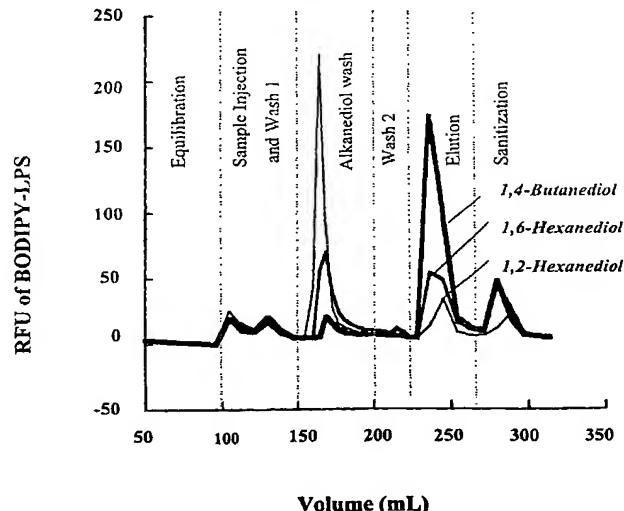
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(54) Title: REMOVAL OF LIPOPOLYSACCHARIDES FROM PROTEIN-LIPOPOLYSACCHARIDE COMPLEXES BY NON-FLAMMABLE SOLVENTS



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(57) Abstract: During the production of recombinant proteins from gram negative bacteria, lipopolysaccharides (LPS, endotoxin) are released along with the protein of interest. In many instances, LPS will copurify with the target protein due to specific or non-specific protein-LPS interactions. We have investigated the ability of alkanediols to effect the separation of LPS from protein-LPS complexes while the complexes are immobilized on anion or cation exchange chromatographic media. Alkanediols provide a safer alternative to the use of other organics such as alcohols or acetonitrile due to their lower toxicity and decreased flammability. In addition, they are less costly than many of the detergents that have been used for such purposes. LPS removal efficiency increased with increasing alkane chain length. 1,2-alkanediols were more effective than terminal alkanediols in the separation of LPS from protein-LPS complexes.

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